

CLAIMS

What is claimed is:

1. A method for determining, in a timeslot, the initial setting of a gain control loop; the gain control loop being included in a receiver of a communication system which utilizes repeating frames, each frame having a plurality of timeslots; the method comprising:

storing the setting of the gain control loop for a particular timeslot;
retrieving said stored setting in the corresponding timeslot of a subsequent frame; and
adjusting said setting by a correction factor to provide said initial setting.

2. The method of claim 1 wherein said correction factor is $10^{\Delta/20}$, where Δ is a predetermined offset.

3. A method for determining the setting of a gain control loop; the gain control loop being included in a receiver of a communication system which utilizes repeating frames, each frame having a plurality of timeslots; the method comprising:

receiving a segment of data, the segment of data comprising a plurality of samples;

determining, from said plurality of samples, the number of said samples which exceed a first threshold;

setting the gain of the gain control loop for a particular timeslot based, at least in part, upon said number.

4. The method of claim 3, wherein said segment of data includes a first portion whereby samples are examined and a second portion whereby samples are not examined.

5. The method of claim 4 wherein said first portion is a sampling period and said second portion is a skip period.

6. The method of claim 3, further comprising adjusting said gain by a power correction factor.

7. The method of claim 6, wherein said power correction factor depends, at least in part, upon said number.

8. The method of claim 7, further comprising a lookup table, which receives said number and outputs said power correction factor.

9. The method of claim 3, further comprising comparing said number to a second threshold; whereby if said second threshold is exceeded, said segment of data is deleted.

10. An automatic gain control (AGC) circuit, comprising:
an AGC loop, for receiving a segment of data comprising a plurality of samples; the AGC loop determining a gain setting and outputting said segment of data;
a saturation detection circuit, responsive to said output from said AGC loop, for determining the number of samples which exceed a first threshold; and
an erase circuit, for comparing said number with a second threshold, and determining if said number exceeds said second threshold; whereby said segment is erased when said second threshold is exceeded.

11. The AGC circuit of claim 10, wherein said saturation detection circuit further comprises a look-up table, for receiving said number and outputting a

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corresponding power correction factor; and wherein said AGC loop adjusts said gain setting responsive, at least in part, to said power correction factor.